

# ASSOCIATION BETWEEN SERVICE HEALTH QUALITY AND PATIENT SATISFACTION – A CASE STUDY OF PEOPLE IN NORTH MAMUJU, INDONESIA 2017

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## ABSTRACT

*Satisfaction is a comparison between the perceptions of services received with expectations, while the quality of health services is act or services provided by one party to another in form of care or provision of health facilities. Health resources are one contributing factor in provision of qualified health care, which is expected to improve public health. Aspects of provided services quality will affect patient satisfaction. If their expectations are met, it means that service has provided good quality and will also lead to high satisfaction. This study aims to determine the relationship of health services quality and satisfaction level in people of North Mamuju. Analytic observational research with cross-sectional study design, population of the entire community of North Mamuju regency and research subjects were aged >18 years. The results showed significant value in registration 0.010 and physicians 0.007, implying registration and physicians have significant effect on customer satisfaction. The conclusions of this study indicate that the registration, doctors, nurses, pharmaceutical, environmental and hospital / clinic variables collectively have positive effect on customer satisfaction*

**Key words:** Service quality, satisfaction, North Mamuju

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## 1. INTRODUCTION

Based on the decision of Health Minister of Indonesian Republic number HK.02.02/Menkes/62/2015 stated that health workers have important role to improve maximum health care quality to public so that people able to raise awareness, willingness and ability of healthy life to realize highest health status. And that everyone has equal rights in obtaining access to health, safe health services, qualified, affordable, entitled independently and responsible in determining health services required. In order to achieve the goal of integrated comprehensive health efforts and evenly which can be received and affordable in whole society.<sup>1,2</sup>

Dental and oral care isn't just treating toothache but improve teeth from aesthetic aspect that will create and raises self-confidence. Satisfaction of dental health service will encourage patients to maintain their dental and oral health as well as prevention of dental and oral problems.<sup>2,3,4,5</sup>

Satisfaction is determined by a person's perception of performance or products or services in relation with expectation with the result that good service quality become primary supporter of customer satisfaction. To improve the quality of health care, the most important thing is to get feedback from patients. Some countries such in Germany since 2005, patient satisfaction on health services shall be measured as health quality management reports, even country such as UK has launched survey of health care quality program in all health services each year, and the results reported to government.<sup>6,7,8,9,10,11,12</sup>

The quality of health services requires two dimensions: technical quality (quality of results) and the functional quality (quality processes). Technical quality focuses on the accuracy of medical diagnoses and procedures while the functional quality refers to the way in which health services provided to patients. Aspects of services quality provided will influence patient's satisfaction. Patients will compare or ask for recommendations of others to seek best health services.<sup>13,14</sup>

Based on the projection data from Central Bureau of Statistics of North Mamuju, total population in 2015 in North Mamuju as many as 152,505 people, consist of 79,249 males and 73,256 women population. The growth was caused by several factors, besides birth and death, the biggest factor caused by high levels of immigration than emigration of the population. The ratio of each health workers per 100,000 populations was 11.8 general practitioners per 100,000 populations, dentist, which is 3.93 per 100,000 populations, nurses 93.11 per 100,000 population, and pharmacist amounted to 15.74 per 100,000 populations. When compared with the target of achieving Healthy Indonesia 2015 it appears that the ratio of general medical doctors, dentists, and nurses have not reached the target (general practitioners are 45 per 100,000 population, dentists are 13 per 100,000 population, and nurses are 180 per 100,000 population).<sup>15,16</sup>

The lack of medical personnel in North Mamuju greatly affect the quality of health service that affect people's satisfaction and will to continue on their decision in choosing better service elsewhere. Seeing the situation, researchers are interested in determining the relationship of health services quality to rate of people's satisfaction in Bambaيرا and Sarjo District of North Mamuju.

## 2. OBJECTIVE

This research aims to determine Association between service health quality and patient satisfaction in North Mamuju

### 2.1. Design and Method

This was analytical observational research with cross-sectional study design and pilot pathfinder survey which is determined by taking only the rural areas, they are Sarjo and Bambaيرا District.

### 2.2. Research Population and Sample

The population in this study was the whole community of Sarjo and Bambaيرا District of North Mamuju. The sample was people aged > 18 years and totaling 43 samples.

### **2.3. Variable dan Measurement**

Dependent variable in this research was patient's satisfaction using questionnaire by Dr. Deni A.Ali. Independent variables were registration, doctors, nurses, pharmacist, and hospital environments using questionnaire by Parasuraman, Zeithaml dan Berry.<sup>17,18</sup>

#### **2.3.1. Client's Satisfaction**

Client's satisfaction measured through one item with five points scale (1= very bad to 5= really good). Patients assess these items by marking number in accordance with their answers.

#### **2.3.2. Registration**

Registration is measured using 12 questionnaire variables assessed on a five-point scale: 1 = strongly disagree to 5 = strongly agree. Measured items were: registration facilities, number of officers, distance of registration location, outfit neatness, place cleanliness, waiting time for patients, fair services, information of trusted officers, officers carrying out their task properly, officers have sympathy, officer responsiveness, and punctual schedule. Patients assess these items by marking numbers in accordance with their answers. Total of all subscale items were taken as registration measurement.

#### **2.3.3. Doctor**

Physicians as health providers assessed using 12 questions items rated on five-point scale: 1 = strongly disagree to 5 = strongly agree, the questions were: the number of doctors, outfit neatness of doctors, arrive on time, assessment accuracy, explanation of drugs, responsiveness to complaints, provide opportunity for patients to ask questions, doctor asks the patient's anxiety, doctor's attitude which provide security, good service to patient's family, proper answers explanations, and maintain patient confidentiality. Amount of some items then measured as measurement of doctor quality.

#### **2.3.4. Nurse**

Twelve items measured on nurses category to know patients' views about the services quality of nurses, assessed on five-point scale: 1 = strongly disagree to 5 = strongly agree, question items were as follows: outfit neatness of nurses, number of nurses, punctuality, skills, responsiveness in dealing with patients, meticulous service, nurse immediately act when needed, communication with patient, friendly service, attitude of nurses provide sense of security, confidentiality of patients, and serve patient's relatives well. Then the patient marked items according to their answers.

#### **2.3.5. Pharmacy**

For pharmacy variable, there are 11 question items rated on five-point scale: 1 = strongly disagree to 5 = strongly agree. Item question were: pharmacist neatness, number of pharmacist, drugs needed in hospitals, orderliness of drugs, comfort of lounge area, pharmacy hygiene, clarity of prescription writing, staffs show drugs use clearly time reception drugs that do not take a long time, staffs provide friendly services, and drug supplies required by patient.

#### **2.3.6. Hospital Environment**

Nine items measured in hospital environment with five-point scale: 1 = strongly disagree to 5 = strongly agree. Item questions were: cleanliness of hospital environment, garbage dump, and fineness of the garden, air comfort, and tranquility in hospital environment, hospital parking lot, hospital fencing, and odorless trash bins. Patients assess these items by marking numbers correspond with their answers. Total of all subscale items were taken as measurement in hospital environment.

### 3. DATA COLLECTION AND ANALYSIS

Data collected during two days. Data obtained through structured questionnaires which have been designed specifically for the study. Questionnaire items have three main parts: the characteristics of the respondents, patient satisfaction and health services quality questionnaire. Before starting the study, it was necessary to obtain permission from local authorities. To ensure the confidentiality of study participants, they were instructed not to provide personal identification in any form. Data collected were analyzed using SPSS (v23). Client demographic characteristics were analyzed descriptively using frequencies and percentages. Based on its accuracy, research using Pearson correlation to define possible relationship between health service quality measured by patient satisfaction. Quality of service is significantly which had effect on patient satisfaction were identified through multiple regression.

### 4. RESULT

#### 4.1. Samples Demographic Characteristic

The research sample was equally distributed based on 62.8% of female and 37.2% of male. The largest ethnic group was Mandar 74.4%. Age of 18-25 years is the largest age group with percentage of 27.9%. Total of 43 samples from our correspondent, most of their latest education were elementary school. Marriage status of correspondent showed majority of them were married (n = 60) and divorced respondents were the least (n = 9). Table 1.0 provides summary of sample demographic characteristics.

**Tabel 1.0** Patients' Demographic Characteristic

<b>Respondents' characteristics</b>	<b>n</b>	<b>Percentage (%)</b>
Sex		
Male	16	37,2%
Female	27	62,8%
Ethnic		
Mandar	32	74,4%
Bugis	8	18,6%
Kaili	3	7%
Age (years)		
18-25	12	27,9%
26-35	9	20,9%
36-45	10	23,3%
46-55	8	18,6%
56-65	3	7,0%
>65	1	2,3%
Marriage Status		
Single	3	7%
Married	31	72,1%
Widow	6	14%
Widower	3	7%
Latest Education		
Not attending school	16	37,2%
Elementary school	18	41,9%
Junior High School	6	14%
Senior High School	3	7%

Source: primary data, 2017

## 4.2. Multiple Regression Analysis for Health Services Quality and Patients' Satisfaction Factors

A multiple regression was conducted between patient satisfaction as dependent variable and registration, doctor, nurse, pharmacist, and hospital environment as independent variables. Regression analysis to determine the linear combination of registration conditions, doctors, nurses, pharmacists, and hospital environment to predict client satisfaction.

The results of multiple regression analysis states that there was significant effect in overall service quality to client satisfaction.  $F(4,518)$ ,  $p < 0.003$ . About 61.6% ( $R^2 = 0.616$ ) consumer satisfaction can be explained by variation of independent variables.

**Table 2.0** Multiple Regression Analysis of health services quality (independent variable) on patients' satisfaction (n=42)

Variable	B	SEB	B	Sig
( Constant )	54.990	13.919		0,000
Registration	0,714	0,262	0,402	0,010
Doctor	-0,897	0,315	-0,501	0,007
Nurse	0,437	0,295	0,290	0,147
Pharmacy	0,261	0,210	0,210	0,223
Hospital environment	0,080	0,285	0,053	0,780

Note.  $R^2 = .616$ ;  $F(4,518)$ ,  $p < 0.05$

From Table 2.0, it showed that there is significant value in registration of 0,010 and 0,007 of physicians. Significance variable value is  $p < 0.05$ , means registration and physician have significant effect on customer satisfaction. From F test results, obtained calculated F value of 4.518 with significance probability of 0,003. Since the probability is much smaller than 0.05 it can be concluded that registration, doctors, nurses, pharmacy, and hospital environmental collectively have positive effect on customer satisfaction. While determination coefficient in this study is 0.616. This means that 61.6 percent of customer satisfaction variable can be explained by variation of the independent variables, namely, registration, doctors, nurses, pharmacy, and hospital environmental, while 38.4 percent explained by other variables that are not in this research.

## 5. DISCUSSION

Gender did not have significant impact on the patient's view point of provided services quality. Someone aged adults are believed to have higher levels of satisfaction on service quality compared with younger people. It is because more aged a person, his/her mindset will become more critical and able to judge things well. In assessing service quality to knowledge satisfaction will influence, which people with lower education are not critical even apathetic about health service they given.<sup>19,20,21</sup>

The registration/administration staffs are in charge in providing administrative services for consumers. In this study is registration. Ease of administration procedures is critical in ensuring patient satisfaction on service quality at hospital. A doctor who provide services should be disciplined, can explain well, even genuine caring attitude to complaints reported by patients, are issues that can affect patient satisfaction. Besides technical competence in performing treatment and 24-hour availability of doctors in the hospital/clinic also affect patient satisfaction.<sup>22,23,24</sup>

The higher the services quality, the satisfaction rate will be higher. The main factor that leads to patient satisfaction are staffs, concerned and knowledgeable staffs. Besides registration staffs and doctors, other staffs such nurse and pharmacy staffs/pharmacist should also provide excellent health services which create patient satisfaction on services quality. Patients want skilled officers and provide them with information. They also want health care providers to work as a collaborative team and communicate with each other effectively to provide good service quality. Besides hospital quality services, hospital

environmental hygiene should be considered because in addition in providing comfort to patients, a clean environment will also reduce emotional feelings of a person that will help live better life.<sup>20,24,25,26,27</sup>

Good health services quality will also generate good satisfaction rate. Many attempts can be made in improving health services quality, both from improved quality of service personnel and facilities aspects as well as environment around health services. So, good health services quality can give impact to healthy and prosperous community.

## 6. CONCLUSION

Satisfaction on health services is the impact of good health services quality. Good quality service is believed to affect people's satisfaction, which generally affects people's decision to choose health care provider. Registration, doctors, nurses, pharmacy, and hospital environment in Sarjo and Bambaira distric, North Mamuju collectively have positive effect on customer satisfaction.

### 6.1. Suggestions for Further Research

Further research needs to be done with variables or other dimensions such as treatment payment, other health care workers, and advice or facilities at the health service provider

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